

S166702



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200  
Fax 613 632-5246

**D6101-007**  
**Job Sheet 191059**



Part No: D6101-007

Job Qty: 40 pcs

Part Name: Saddle Billet



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 2/21/19

Job Tracking No:

Due Date: 3/18/19

Created By: Marie Lajeunesse

Type: Stock

Description:

Note: DWG REV B

Ship Via:

### Bill of Materials

### Job Routing

| Op No | Operation                     | Qty    | Start Date | Due Date | Standard  |         | Workcenter/Supplier    |           | Sign-off    |
|-------|-------------------------------|--------|------------|----------|-----------|---------|------------------------|-----------|-------------|
|       |                               |        |            |          | Setup Hrs | Run Hrs | Workcenter / Supplier  | Lead Time |             |
| 100   | Purchasing                    | 40 pcs | 3/18/19    |          | 0.00      | 0.00    | Purchasing - 1         |           | At 14/03/27 |
|       |                               |        |            |          |           |         | Purchasing - 2         |           |             |
|       |                               |        |            |          |           |         | Purchasing - 3         |           |             |
| 110   | Packaging 2-1 - Receive - B4B | 40 pcs | 3/18/19    |          | 0.00      | 0.00    | Packaging 2 - 1 - B4B  |           | At 19/03/27 |
|       |                               |        |            |          |           |         | Packaging 2 - 2 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 3 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 5 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 4 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 6 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 7 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 8 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 9 - B4B  |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 10 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 11 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 12 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 13 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 14 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 15 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 16 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 17 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 18 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 19 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 20 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 21 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 22 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 23 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 24 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 25 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 26 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 27 - B4B |           |             |
|       |                               |        |            |          |           |         | Packaging 2 - 28 - B4B |           |             |

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|                                 |        |         |           |                        |                        |  |
|---------------------------------|--------|---------|-----------|------------------------|------------------------|--|
|                                 |        |         |           |                        | Packaging 2 - 29 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 30 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 31 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 32 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 33 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 34 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 35 - B4B |  |
|                                 |        |         |           |                        | Packaging 2 - 36 - B4B |  |
| 120 QC 6                        | 40 pcs | 3/18/19 | 0.00 0.00 | QC 6 - 42              |                        |  |
|                                 |        |         |           | QC 6 - 9               |                        |  |
|                                 |        |         |           | QC 6 - 68              | DAS                    |  |
|                                 |        |         |           | QC 6 - 61              | 61                     |  |
| 130 Packaging 3-1 - Stock - B4B | 40 pcs | 3/18/19 | 0.00 0.00 | Packaging 3 - 1 - B4B  | 9-89                   |  |
|                                 |        |         |           | Packaging 3 - 2 - B4B  |                        |  |
|                                 |        |         |           | Packaging 3 - 3 - B4B  | B.N.                   |  |
|                                 |        |         |           | Packaging 3 - 4 - B4B  |                        |  |
|                                 |        |         |           | Packaging 3 - 5 - B4B  | 03/28/19               |  |
|                                 |        |         |           | Packaging 3 - 6 - B4B  |                        |  |
|                                 |        |         |           | Packaging 3 - 7 - B4B  |                        |  |
|                                 |        |         |           | Packaging 3 - 8 - B4B  |                        |  |
|                                 |        |         |           | Packaging 3 - 9 - B4B  |                        |  |
|                                 |        |         |           | Packaging 3 - 10 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 11 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 12 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 13 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 14 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 15 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 16 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 17 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 18 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 19 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 20 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 21 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 22 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 23 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 24 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 25 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 26 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 27 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 28 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 29 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 30 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 31 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 32 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 33 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 34 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 35 - B4B |                        |  |
|                                 |        |         |           | Packaging 3 - 36 - B4B |                        |  |
| 140 QC 21 - SA                  | 40 pcs | 3/18/19 | 0.00 0.00 | QC 21 - SA - 21        | DAS                    |  |
|                                 |        |         |           | QC 21 - SA - 70        | 21                     |  |
|                                 |        |         |           | QC 21 - SA - 53        | 9-89                   |  |

MAR 28 2019

Part Op 100 - Issue P/O: \_\_\_\_\_ b) 7.750" x 8.250" x 2.50" thick d) Grain direction along 7.750" length  
 Descriptions: 110 - (Receive & Inspect for Damage & Mat'l Certs), Ensure material certification is attached  
 120 - (QC6- All purchased or subcontracted products), Ensure Material certification comply to Dwg D6101  
 130 - (Identify as per dwg & Stock Location: 01541), LOCATION: MAT041  
 140 - (QC21- Final Inspection - Work Order Release)

CZ x40 19-02-22

**Job BOM**

| Part / Item | Component Name           | Quantity      | Operation      | Container |
|-------------|--------------------------|---------------|----------------|-----------|
| D6101-007P  | 7075-T7351 8.25X7.75X2.5 | 40 pcs (1 ea) | 100-Purchasing | S166693   |

**Job Allocations**

| Operation      | Component Part | Required | Inventory | Allocated |
|----------------|----------------|----------|-----------|-----------|
| 100-Purchasing | D6101-007P     | 40       | 0         | 0         |

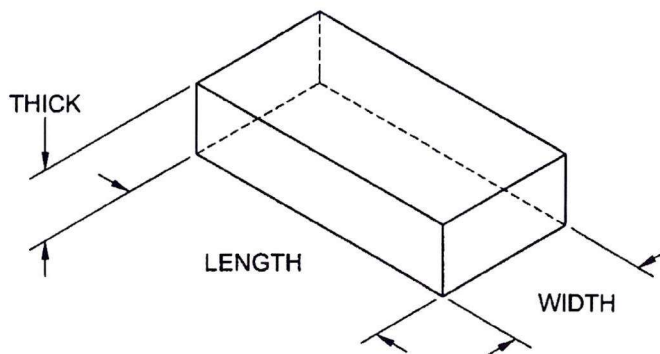
**Part Specifications**

Specifications could not be found.

Plex 2/21/19 8:29 AM Dart.lajeunesse.marie



# SPECIFICATION CONTROL DRAWING



SHOP COPY  
RETURN TO  
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UNCONTROLLED COPY  
SUBJECT TO AMENDMENT  
WITHOUT NOTICE  
WORK ORDER  
NO. 191059MCS

19-01-21

PURCHASE MATERIAL ACCORDING TO THE FOLLOWING TABLE. SPECIFY ALLOY, LENGTH x WIDTH x THICK (+0.030/-0.000), AND GRAIN DIRECTION AS SHOWN.

TOLERANCES ON ALL DIMENSIONS ARE +0.030/-0.000.

ALL DIMENSIONS ARE IN INCHES.

**B** ACCEPTABLE SPECIFICATIONS FOR 7075-T7351 ALUMINUM ARE AMS-QQ-A-250/12, QQ-A-250/12, OR ASTM B209

| Part No.  | Alloy                    | Length | Width | Thick | Grain Direction    |
|-----------|--------------------------|--------|-------|-------|--------------------|
| D6101-001 | 7075-T7351 (QQ-A-250/12) | 6.000  | 6.250 | 2.000 | Along 6.000 Length |
| D6101-003 | 7075-T7351 (QQ-A-250/12) | 7.875  | 6.250 | 2.000 | Along 7.875 Length |
| D6101-005 | 7075-T7351 (QQ-A-250/12) | 5.000  | 8.250 | 2.500 | Along 5.000 Length |
| D6101-007 | 7075-T7351 (QQ-A-250/12) | 7.750  | 8.250 | 2.500 | Along 7.750 Length |
| D6101-009 | 7075-T7351 (QQ-A-250/12) | 8.700  | 8.250 | 2.500 | Along 8.700 Length |
| D6101-011 | 7075-T7351 (QQ-A-250/12) | 9.700  | 8.250 | 2.500 | Along 9.700 Length |
| D6101-013 | 7075-T7351 (QQ-A-250/12) | 10.100 | 8.250 | 2.500 | Along 10.10 Length |
| D6101-015 | 7075-T7351 (QQ-A-250/12) | 9.450  | 6.250 | 2.500 | Along 9.450 Length |
| D6101-017 | 7075-T7351 (QQ-A-250/12) | 6.350  | 6.250 | 2.250 | Along 6.350 Length |

**B**

RELEASED  
09/15/15/WB

|            |                                     |                                                                                                                                                                                                                                                                                          |              |
|------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------|
| B          | ADDED D6101-015/-017, ADD ASTM B209 | RF                                                                                                                                                                                                                                                                                       | 09.04.23     |
| A          | NEW ISSUE                           | CP                                                                                                                                                                                                                                                                                       | 01.03.30     |
| REV.       | DESCRIPTION                         | BY                                                                                                                                                                                                                                                                                       | DATE         |
| DESIGN     | CP                                  | <b>DART AEROSPACE LTD</b>                                                                                                                                                                                                                                                                |              |
| DRAWN      | RF                                  | HAWKESBURY, ONTARIO, CANADA                                                                                                                                                                                                                                                              |              |
| CHECKED    | <i>[Signature]</i>                  | DRAWING NO.                                                                                                                                                                                                                                                                              | REV. B       |
| MFG. APPR. | <i>[Signature]</i>                  | D6101                                                                                                                                                                                                                                                                                    | SHEET 1 OF 1 |
| APPROVED   | <i>[Signature]</i>                  | TITLE                                                                                                                                                                                                                                                                                    | SCALE        |
| DE APPR.   | <i>[Signature]</i>                  | SADDLE BILLET, 7075                                                                                                                                                                                                                                                                      | NTS          |
| DATE       | 09.04.23                            | <small>COPYRIGHT © 2001 BY DART AEROSPACE LTD<br/>THIS DOCUMENT IS PRIVATE AND CONFIDENTIAL AND IS SUPPLIED ON THE EXPRESS CONDITION THAT IT IS NOT TO BE USED FOR ANY PURPOSE OR COPIED OR COMMUNICATED TO ANY OTHER PERSON WITHOUT WRITTEN PERMISSION FROM DART AEROSPACE LTD.</small> |              |



Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO042684



**Supplier:** MEC002-VU  
Metaux Castle  
P.O. Box 4090 Stn A  
Toronto  
ON  
M5W OE9 Canada

**PO No:** PO042684  
**PO Date:** 2/22/19  
**Due Date:** 3/18/19  
**Purchase Order  
Revision:**  
**Revision Date:**  
**Ship-To Contact:** Tsimiklis, ChrisoulaPhone:

**Ship To:** 1270 Aberdeen Street  
Hawkesbury  
ON  
K6A 1K7 Canada  
Phone: 613-632-5200

**Via:** Ground  
**Pymt Terms:** Net 60  
**Freight Terms:**  
**Special Comments:**

**E-MAILED**

## Items

| Line<br>Item | Job    | Part       | Supplier<br>Part No | Description                                                                                                                                                                                                                                                      | Status | Account | Due<br>Date | Order<br>Quantity | Received<br>Quantity | Balance               | Unit<br>Price (USD) | Extended<br>Price |
|--------------|--------|------------|---------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|-------------|-------------------|----------------------|-----------------------|---------------------|-------------------|
| 1<br>AT      | 191058 | D6101-005P |                     | 7075-T7351<br>8.25X5.0X2.5<br>: Various STC's<br>AS PER DWG.D6101<br>REV.B<br>SIZE: 5.00" X 8.250"<br>X 2.50" THICK<br>GRAIN DIRECTION<br>ALONG 5.00"<br>LENGHT<br>MATERIAL: 7075-<br>T7351 QQ-A-250/12<br>TOLERANCE AS<br>PER QUOTE<br>+.030"/-.000"            | Firmed | -       | 3/18/19     | 40 pcs<br>/       | 0 pcs<br>40x         | 40 pcs<br>AT 19/03/27 | \$40.54/pcs         | \$1,621.60        |
| 2<br>AT      | 191059 | D6101-007P |                     | 7075-T7351<br>8.25X7.75X2.5<br>: Various STC's<br>AS PER DWG D6101<br>REV. B<br>MATERIAL: 7075-<br>T7351 (QQ-A-<br>250/12)<br>SIZE: 7.750" X<br>8.250" X 2.50" THICK<br>GRAIN DIRECTION<br>ALONG: 7.750"<br>LENGTH<br>TOLERANCE AS<br>PER QUOTE<br>+.030"/-.000" | Firmed | -       | 3/18/19     | 40 pcs<br>/       | 0 pcs<br>40x         | 40 pcs<br>AT 19/03/27 | \$61.72/pcs         | \$2,468.80        |





Dart Aerospace Ltd.  
1270 Aberdeen St  
Hawkesbury, ON  
K6A 1K7  
Canada

Tel (613) 632-5200

# PURCHASE ORDER PO042684



## Items

| Line Item    | Job    | Part       | Supplier Part No | Description                                                                                                                                 | Status | Account | Due Date | Order Quantity     | Received Quantity | Balance                | Unit Price (USD) | Extended Price |
|--------------|--------|------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------|--------|---------|----------|--------------------|-------------------|------------------------|------------------|----------------|
| 3<br>✓<br>M  | 191092 | D6103-003P |                  | Round Alum Billet<br>: Various STC's<br>AS PER DWG D6103<br>REV. B<br>MATERIAL: 7075-T7351 AS PER QQ-A-225/9<br>SIZE: 3.500" X 12.500" LONG | Firmed | -       | 3/18/19  | 20 pcs<br>✓<br>22x | 0 pcs             | 20 pcs<br>At 6/9/21/27 | \$60.40/pcs      | \$1,208.00     |
| 4<br>✓<br>M  | 191197 | D6104-007P |                  | 17-4 SS Roundbar<br>4.50"Od<br>: Various STC's                                                                                              | Firmed | -       | 3/18/19  | 12 pcs<br>✓<br>12x | 0 pcs             | 12 pcs<br>At 6/9/23/26 | \$68.53/pcs      | \$822.36       |
| Grand Total: |        |            |                  |                                                                                                                                             |        |         |          |                    |                   |                        |                  | \$6,120.76     |

## Order Notes

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit [www.dartaerospace.com](http://www.dartaerospace.com) for further explanation.

### Procurement Quality Clauses

- A005 RIGHT OF ENTRY
- A007 FIRST ARTICLE INSPECTION (FAI) BY SELLER, (DOCUMENTATION MAINTAINED BY SUPPLIER)
- A012 CHEMICAL AND PHYSICAL TEST REPORTS
- A016 PERSONNEL QUALIFICATION
- A017 RAW MATERIAL IDENTIFICATION (AS APPLICABLE)
- A026 CERTIFICATION OF MATERIAL CONFORMANCE
- A041 QUALITY MANAGEMENT SYSTEM
- A042 DART NOTIFICATION BY SUPPLIER
- A043 RETENTION OF QUALITY DOCUMENT
- A048 COUNTERFEIT PARTS AVOIDANCE, DETECTION, MITIGATION AND DISPOSITION PROGRAM
- A049 SUPPLIER AWARENESS

Plex 2/22/19 2:00 PM dart.tsimiklis.chrisoula

**Castle Metals®**

A. M. Castle &amp; Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 1 of 2

Shipment No:3855466

|                                                                                                    |               |                                                                                        |  |                                                                                         |  |                                                                                              |  |
|----------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------|--|-----------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------|--|
| <b>Ship From:</b><br>A. M. CASTLE & CO.<br>2150 ARGENTIA ROAD<br>MISSISSAUGA, ON L5N<br>2K7<br>CAN |               | <b>Sold To:</b><br>DART AEROSPACE LTD<br>1270 ABERDEEN<br>HAWKESBURY, ON K6A 1K7<br>CA |  | <b>Ship To:</b><br>DART AEROSPACE LTD<br>1270 ABERDEEN<br>HAWKESBURY, ON<br>K6A 1K7 CAN |  | <b>Deliver To:</b><br>DART AEROSPACE LTD<br>1270 ABERDEEN<br>HAWKESBURY, ON<br>K6A 1K7<br>CA |  |
| <b>Date Shipped</b>                                                                                | <b>F.O.B.</b> | <b>Freight Terms</b>                                                                   |  | <b>Carrier</b>                                                                          |  | <b>BOL No</b>                                                                                |  |
| 19-MAR-19                                                                                          | ORIGIN        | Prepaid                                                                                |  | MANITOULIN                                                                              |  | 3855466-2                                                                                    |  |

|                         |                                       |
|-------------------------|---------------------------------------|
| <b>Shipment Details</b> | <b>Final Destination Branch - TOR</b> |
|-------------------------|---------------------------------------|

|                   |         |                                |                                                                                                                                                                                                                                                          |             |
|-------------------|---------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------|
| Order No          | Line No | Item No                        | Description                                                                                                                                                                                                                                              |             |
| 5411566           | 2       | 752241.MO                      | 2.5000.PL.7075.T7351.ALUMINUM.USI.48.5000.144.5000<br>CUT RECTANGLE TO 8.25 IN ( + .0310/- .0000 IN (GRAIN TO RUN<br>ALONG 7.75")) X 7.75 IN ( + .0310/- .0000 IN (GRAIN TO RUN ALONG<br>7.75")) - ALUMINUM PLATE SAW SPECIFICATIONS:<br>AMS-QQ-A-250/12 |             |
| Purchase Order No |         | Part Number                    | Ordered Qty                                                                                                                                                                                                                                              | Invoice Qty |
| 42684             |         | YOUR ITEM NUMBER:<br>D6101-007 | 40.00 PCS                                                                                                                                                                                                                                                | 40.00 PCS   |

|                |                                                                                                                                                                                                                                                          |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Details</b> | ALL PAPERWORK MUST FOLLOW ORDER / CUSTOMER MUST RECEIVE AT TIME OF DELIVERY<br>ALL MATERIAL MUST HAVE IDENTIFYING MARKINGS EX:HEAT #'S<br>Email P/s and certs to: clavoie@dartaero.com<br>END USER: DART AEROSPACE<br>END USE: COMMERCIAL AIRCRAFT PARTS |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

|                                  |                                          |                                                                                                           |                |                  |                   |                    |                                     |
|----------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------|------------------|-------------------|--------------------|-------------------------------------|
| <b>Delivery No.</b><br>122593001 | <b>Mill/Source</b><br>KAISER<br>ALUMINUM | <b>Heat Number</b><br> | <b>Mech Id</b> | <b>PCS</b><br>40 | <b>Width (IN)</b> | <b>Length (IN)</b> | <b>Shipped Qty(LBS)</b><br>661.2674 |
|----------------------------------|------------------------------------------|-----------------------------------------------------------------------------------------------------------|----------------|------------------|-------------------|--------------------|-------------------------------------|

We hereby certify the material covered by this certification conforms in accordance with the above specifications and has been found to meet the applicable requirements for the material, including any specifications forming a part of the description. Test reports are on file subject to examination. All claims for defective material are waived unless made in writing to A.M. Castle & Co. within 60 days of the shipment. Material cut to the correct size, or material cut by the customer cannot be returned

Date Printed: 19-MAR-2019 03:19:13 PM



**Castle Metals®**

A. M. Castle & Co.

PACKING SLIP/  
CERTIFICATE OF CONFORMANCE

Page 2 of 2

|                                                      |             |       |                      |
|------------------------------------------------------|-------------|-------|----------------------|
| for credit.                                          |             |       |                      |
| Reviewed by Authorized Castle Metals Representative: | MAR 19 2019 | Date: | Name: <i>Skalawo</i> |





**SHIP TO:**

A M CASTLE METALS  
4175 ROYAL DRIVE, SUITE 600  
KENNESAW, GA 30144

**SOLD TO:**

AM CASTLE & CO- SOLD TO  
1420 KENSINGTON RD  
SUITE 220  
OAK BROOK, IL 60523

# KAISER ALUMINUM

Trentwood Works

PO Box 15108, Spokane Valley WA 99215-510

15000 E Euclid, Spokane Valley WA 99216

Phone: (800) 367-2586

**CERTIFIED TEST REPORT**

Serial Number

4543820

|                                            |                           |                                 |                                     |                                             |
|--------------------------------------------|---------------------------|---------------------------------|-------------------------------------|---------------------------------------------|
| CUSTOMER PO NUMBER:<br>479959-1            | WORK PACKAGE:             | CUSTOMER PART NUMBER:<br>752241 | SHIP RUN/LOAD:<br>104494/4          | GOVT CONTRACT NUMBER:                       |
| KAISER ORDER NO:<br>1270248-1              | SHIP DATE:<br>29-DEC-2018 | ALLOY:<br>7075                  | CLAD:<br>BARE                       | TEMPER:<br>T7351                            |
| WEIGHT SHIPPED:<br>7214 LB<br>(3272.25 KG) | QUANTITY:<br>4 PCS EST.   | TRUCK B/L #:<br>2078139         | GUAGE:<br>2.5000 IN<br>(63.5000 MM) | DIAMETER/WIDTH:<br>48.500 IN<br>(1231.9 MM) |
|                                            |                           |                                 |                                     | LENGTH:<br>144.500 IN<br>(3670.3 MM)        |

MHU 2284772: LOT 296170B4: 1 pieces;

MHU 2284774: LOT 296170B4: 1 pieces;

MHU 2284920: LOT 717907B0: 1 pieces;

MHU 2284921: LOT 717907B0: 1 pieces;

**Certified Specifications**

AMS 4078/RevK  
ASTM B 209/Rev14  
BSS 7055/RevB  
DPS 4.713/RevAK  
GSS16100/RevG/Amd1  
PS 21211/RevP

AMS-QQ-A-250/12/RevA  
ASTM B 594/Rev13  
CMMP 025/RevV  
EAC MS1011/RevE  
MMS 159/RevT

AMS-STD-2154/RevC  
BAC 5439/RevJ  
CSTI 006/RevE  
GAMPS 9101/RevB/AmdSCN1  
PPS 20.04/Rev7

Test Code: 4297

Lot: 296170B4 Cast 727

Drop 09

Test Results  
Ingot 5

Melted in USA

(ASTM E8/B557)

(EN 2002-1)

|          |        |                  |                            |                            |              |
|----------|--------|------------------|----------------------------|----------------------------|--------------|
| Tensile: | Temper | Dir / # Tests    | Ultimate KSI (MPA)         | Yield KSI (MPA)            | Elongation % |
|          | T7351  | LT / 2 (Min:Max) | 71.4 : 71.5<br>(492 : 493) | 60.5 : 60.8<br>(417 : 419) | 12.2 : 12.4  |

(ASTM E1004)

(EN 2004-1)

|                      |          |          |
|----------------------|----------|----------|
| Conductivity %IACS : | 41.3 Min | 41.3 Max |
| (MS/M) :             | 24.0 Min | 24.0 Max |

(ASTM E1251)

|             |      |      |     |      |     |      |     |      |      |      |          |
|-------------|------|------|-----|------|-----|------|-----|------|------|------|----------|
| Chemistry:  | SI   | FE   | CU  | MN   | MG  | CR   | ZN  | TI   | V    | ZR   | OTHER    |
| Actual(wt%) | 0.06 | 0.17 | 1.5 | 0.03 | 2.5 | 0.19 | 5.8 | 0.03 | 0.01 | 0.01 | TOT 0.03 |



# KAISER ALUMINUM

## CERTIFIED TEST REPORT

Serial Number  
4543820

Trentwood Works  
PO Box 15108, Spokane Valley WA 99215-5108  
15000 E Euclid, Spokane Valley WA 99216  
Phone: (800) 367-2586

Lot: 717907B0 Cast 727 Drop 07 Ingot 1 Parent Lot: 296096B1 Melted in USA

(ASTM E8/B557)  
(EN 2002-1)

|          |        |                  |                            |                            |              |
|----------|--------|------------------|----------------------------|----------------------------|--------------|
| Tensile: | Temper | Dir / # Tests    | Ultimate KSI (MPA)         | Yield KSI (MPA)            | Elongation % |
|          | T7351  | LT / 2 (Min:Max) | 70.6 : 71.0<br>(487 : 490) | 59.2 : 59.6<br>(408 : 411) | 11.6 : 11.9  |

(ASTM E1004)

(EN 2004-1)

|                      |          |          |
|----------------------|----------|----------|
| Conductivity %IACS : | 41.2 Min | 41.3 Max |
| (MS/M) :             | 23.9 Min | 24.0 Max |

(ASTM E1251)

|             |      |      |     |      |     |      |     |      |      |      |          |
|-------------|------|------|-----|------|-----|------|-----|------|------|------|----------|
| Chemistry:  | SI   | FE   | CU  | MN   | MG  | CR   | ZN  | TI   | V    | ZR   | OTHER    |
| Actual(wt%) | 0.06 | 0.15 | 1.5 | 0.02 | 2.5 | 0.21 | 5.7 | 0.02 | 0.01 | 0.01 | TOT 0.03 |

### ALLOY LIMITS

|          |      |      |     |      |     |      |     |      |      |      |       |      |
|----------|------|------|-----|------|-----|------|-----|------|------|------|-------|------|
|          | SI   | FE   | CU  | MN   | MG  | CR   | ZN  | TI   | V    | ZR   | OTHER | MAX  |
| 7075     |      |      |     |      |     |      |     |      |      |      |       |      |
| MIN(wt%) | 0.00 | 0.00 | 1.2 | 0.00 | 2.1 | 0.18 | 5.1 | 0.00 | 0.00 | 0.00 | EACH  | 0.05 |
| MAX(wt%) | 0.40 | 0.50 | 2.0 | 0.30 | 2.9 | 0.28 | 6.1 | 0.20 | 0.05 | 0.05 | TOT   | 0.15 |

Aluminum Remainder

### ORDER COMMENTS

AMC CA-15413B R 9

7055

### TEST NOTES

Metal represented by this test report was 100% Type I  
(immersion) ultrasonically tested from one side with 3mm  
dead zones top and bottom and meets the Class A and Class B  
requirements of all specifications referenced on this test  
report. No surface marking of sonic indications is  
performed.

### CERTIFICATION

Kaiser Aluminum, Trentwood Works, is ISO 9001, AS9100, and ISO 14001 certified, and hereby certifies that all material shipped under this order:  
\* has been inspected, tested, and found to be in conformance with the requirements of the specifications indicated herein.  
All test equipment and measuring devices are calibrated and certified in accordance applicable specifications. For material thicknesses outside specification limits, mechanical properties are as shown herein and chemical composition meets specification requirements. Reported elongation values have been measured as elongation at fracture.  
\* was melted in the United States of America or a qualifying country per DFARS 225.872-1(a), was manufactured in the United States of America, and meets the requirements of DFARS 252.225 for domestic content.  
\* has been thermally processed in compliance with AMS 2772, where applicable.  
\* is mercury free, within the limits of detection of ASTM E1215 (<1ppm).  
\* is in compliance with RoHS 2, European Union Directive 2011/65/EU.  
\* is in compliance with European Chemical Agency, ECHA, REACH regulations, (EC) No 1907/2006, and Kaiser regularly monitors these regulations for updates.  
\* is free of Conflict Minerals, as defined in Section 15.2 of the Dodd-Frank Act.  
\* is free of weld repair.  
\* meets the reporting requirements of EN10204, Type 3.1.  
Any warranty is limited to that shown on Kaiser Aluminum's standard general terms and conditions of sale. Test reports are on file, subject to examination. Test reports shall not be reproduced except in full, without the written approval of the Kaiser Aluminum laboratory. The recording of false, fictitious or fraudulent statements or entries on the certificate may be punished as a felony under federal law.

*Michael Peske*

Michael Peske, PT Lab Process Engineer

Page 2 of 2



# MATERIAL RECEIPT INSPECTION FORM

MATERIAL: D6101-007

PO / BATCH NO.: P0042684/S166702

DATE: 19/03/27

MATERIAL CERT REC'D: Yes

THICKNESS ORDERED: 2.500"

QUANTITY RECEIVED: 40x

THICKNESS RECEIVED: 2.500"

QUANTITY INSPECTED: 40x

SHEET SIZE ORDERED: —

QUANTITY REJECTED: 0

SHEET SIZE RECEIVED: —

| DESCRIPTION                                        | NCR<br>(Check<br>Y/N)                | COMMENTS               |
|----------------------------------------------------|--------------------------------------|------------------------|
| SURFACE DAMAGE                                     | Y <input checked="" type="radio"/> N |                        |
| CORRECT FINISH                                     | <input checked="" type="radio"/> Y N |                        |
| CORROSION                                          | Y <input checked="" type="radio"/> N |                        |
| CORRECT GRAIN DIRECTION                            | <input checked="" type="radio"/> Y N |                        |
| CORRECT MATERIAL PER M-DRAWING                     | <input checked="" type="radio"/> Y N | <u>AMS-QQ-A-250/12</u> |
| CORRECT THICKNESS                                  | <input checked="" type="radio"/> Y N |                        |
| PHOTO REQUIRED                                     | Y <input checked="" type="radio"/> N |                        |
| CORRECT REF # TO LINK CERT                         | <input checked="" type="radio"/> Y N | <u>LT: 71790780</u>    |
| CORRECT MATERIAL IDENTIFICATION                    | <input checked="" type="radio"/> Y N |                        |
| CORRECT M# ON THE MATERIAL                         | <input checked="" type="radio"/> Y N |                        |
| DOES THIS MATERIAL REQUIRE<br>ENGINEERING SIGN OFF | Y <input checked="" type="radio"/> N |                        |
| DOES THIS REQUIRE AN<br>EXTRUSION REPORT           | Y <input checked="" type="radio"/> N |                        |

CUT SAMPLE PIECE OF MATERIAL AND PERFORM A HARDNESS CHECK.  
RECORD RESULTS BELOW

|                              | HRC | HRB | DUR A | DUR D | WEBSTER |
|------------------------------|-----|-----|-------|-------|---------|
| TYPE OF MATERIAL             |     |     |       |       |         |
| SIZE OF TEST SAMPLE          |     |     |       |       |         |
| HARDNESS / DUROMETER READING |     |     |       |       |         |

testers located in the Quality Office

QC 18 INSPECTION

ENGINEERING SIGNOFF (if required)

INSPECTED BY: DAS

SIGNED OFF BY: \_\_\_\_\_

DATE: 61  
9-89 **MAR 27 2019**

DATE: \_\_\_\_\_

Attach this inspection sheet with the corresponding material cert and remit to be scanned and received in